WHAT IS CLAIMED IS:

1. An isolated nucleic acid molecule comprising a nucleotide sequence that encodes a protective sequence product comprising:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

2. An isolated nucleic acid molecule comprising:

(a) a nucleic acid shown in Figures 4(A-L);

(b) a nucleic acid shown in Figures 5(A-X);

(c) a nucleic acid shown in Figures 6(A-AD);

(d) a nucleic acid shown in Figures 7(A-H);

(e) a nucleic acid shown in Figures 8(A-O);

(f) a nucleic acid shown in Figures 9(A-AL);

(g) a nucleic acid shown in Figures 10(A-O);

(h) a nucleic acid shown in Figures 11(A-AG);

(i) a nucleic acid shown in Figures 12(A-AY);

(j) a nucleic acid shown in Figure 13; or

(k) a nucleic acid shown in Figures 1(A-J);

3. An isolated nucleic acid molecule comprising a complement of the nucleic acid molecule of any one of Claims 1-2.

4. An isolated nucleic acid molecule which hybridizes to the complement of the nucleic acid molecule of any one of Claims 1-2 under highly stringent conditions.

5. An isolated nucleic acid molecule which hybridizes to the complement of the nucleic acid molecule of any one of Claims 1-2 under moderately stringent conditions.

6. The isolated nucleic acid molecule of Claim 4, wherein said isolated nucleic acid molecule encodes a protective sequence product.

7. The isolated nucleic acid molecule of Claim 5, wherein said isolated nucleic acid molecule encodes a protective sequence product.

8. A vector comprising the nucleic acid of any one of Claims 1-2.

9. The vector of claim 8, wherein said vector is a viral vector.

10. An expression vector comprising the nucleic acid of any one of Claims 1-2 operatively associated with a regulatory nucleic acid controlling the expression of the nucleic acid in a host cell.

11. A host cell genetically engineered to contain the nucleic acid of any one of Claims 1-2.

12. A host cell genetically engineered to express the nucleic acid of any one of Claims 1-2 operatively associated with a regulatory nucleic acid controlling expression of the nucleic acid in said host cell.

13. A transgenic, non-human animal which has been genetically engineered to contain a transgene comprising the nucleic acid of any one of Claims 1-2.

14. The transgenic, non-human animal of Claim 13, wherein the transgene is expressed.

15. An isolated polypeptide comprising the amino acid sequence of a protective sequence product comprising:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

16. An isolated polypeptide comprising an amino acid sequence encoded by the isolated nucleic acid molecule of Claim 4.

17. An isolated polypeptide comprising an amino acid sequence encoded by the isolated nucleic acid molecule of Claim 5.

18. An isolated fusion polypeptide comprising a fusion peptide and an amino acid sequence of a protective sequence product comprising:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

19. An isolated fusion polypeptide comprising a fusion peptide and an amino acid sequence encoded by the isolated nucleic acid molecule of Claim 4.

20. An isolated fusion polypeptide comprising a fusion peptide and an amino acid sequence encoded by the isolated nucleic acid molecules of Claim 5.

21. An antibody which binds to the isolated polypeptide of Claim 15.

22. A method for treating a protective sequence-mediated condition, disorder or disease in an individual comprising administering to the individual a compound which modulates the function, activity and/or expression of a protective sequence in a cell, cells, tissue, organ, organism or individual.

23. The method of Claim 22, wherein the compound inhibits or potentiates the function, activity and/or expression of a protective sequence in a cell, cells, tissue, organ, organism or individual.

24. The method of Claim 22, wherein the compound enhances or increases the function, activity and/or expression of a protective sequence in a cell, cells, tissue, organ, organism or individual.

25. The methods of any one of Claims 22-24, wherein the compound is selected from the group consisting of a small organic molecule, an antibody, a ribozyme or an antisense molecule.

26. The methods of any one of Claims 22-24, wherein the protective sequence-mediated condition, disorder, or disease is a condition, disorder, or disease of the central nervous system, including but not limited to, neurological and psychiatric conditions, disorders, or diseases.

27. The method of Claim 26, wherein the neurological condition is an ischemia-related condition.

28. The method of Claim 27, wherein the neurological condition is a stroke.

29. The method of Claim 22, wherein the protective sequence encodes a protective sequence product comprising:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

30. The method of Claim 22, wherein the individual is a mammal.

31. The method of Claim 30, wherein the mammal is a human.

32. A method for treating a protective sequence-mediated condition, disorder or disease in an individual comprising administering to the individual a compound which

modulates the expression or activity of a protective sequence product and/or protective sequence regulatory product in the individual.

33. The method of Claim 32, wherein the compound inhibits or potentiates the expression or activity of a protective sequence product and/or protective sequence regulatory product in the individual.

34. The method of Claim 32, wherein the compound enhances or increases the expression or activity of a protective sequence product and/or protective sequence regulatory product in the individual.

35. The method of Claim 32, wherein the compound is selected from the group consisting of a small organic molecule, an antibody, a ribozyme.or an antisense molecule..

36. The method of Claim 32, wherein the protective sequence-mediated condition, disorder, or disease is a condition, disorder, or disease of the central nervous system, including but not limited to, neurological and psychiatric conditions, disorders, or diseases.

37. The method of Claim 36, wherein the neurological condition is an ischemia-related condition.

38. The method of Claim 37, wherein the neurological condition is a stroke.

39. The method of Claim 32, wherein the protective sequence product comprises:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

40. The method of Claim 32, wherein the individual is a mammal.

41. The method of Claim 40, wherein the mammal is a human.

42. A method for identifying a compound which modulates expression of a protective sequence comprising:

(a) contacting a test compound to a cell that expresses a protective sequence;

(b) measuring a level of protective sequence expression in the cell;

(c) comparing the level of protective sequence expression in the cell in the presence of the test compound to a level of protective sequence expression in the cell in the absence of the test compound,

wherein if the level of protective sequence expression in the cell in the presence of the test compound differs from the level of expression of the protective sequence in the cell in the absence of the test compound, a compound that modulates expression of a protective sequence is identified.

43. The method of Claim 42, wherein the protective sequence is endogenously expressed within the cell.

44. The method of Claim 42, wherein the protective sequence encodes a protective sequence product comprising:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

45. The method of Claim 42, wherein the protective sequence comprises:

(a) a nucleic acid shown in Figures 4(A-L);

(b) a nucleic acid shown in Figures 5(A-X);

(c) a nucleic acid shown in Figures 6(A-AD);

(d) a nucleic acid shown in Figures 7(A-H);

(e) a nucleic acid shown in Figures 8(A-O);

(f) a nucleic acid shown in Figures 9(A-AL);

(g) a nucleic acid shown in Figures 10(A-O);

(h) a nucleic acid shown in Figures 11(A-AG);

(i) a nucleic acid shown in Figures 12(A-AY);

(j) a nucleic acid shown in Figure 13; or

(k) a nucleic acid shown in Figures 1(A-J);

46. A method for identifying a compound which modulates expression, function or activity of a protective sequence product or protective sequence regulatory element comprising:

(a) contacting a test compound to a cell that expresses a protective sequence product or protective sequence regulatory element;

(b) measuring a level of protective sequence product or protective sequence regulatory element expression, function or activity in the cell;

(c) comparing the level of protective sequence product or protective sequence regulatory element expression, function or activity in the cell in the presence of the test compound to a level of protective sequence product or protective

sequence regulatory element expression or activity in the cell in the absence of the test compound,

wherein if the level of protective sequence product or protective sequence regulatory element expression, function or activity in the cell in the presence of the test compound differs from the level of protective sequence product or protective sequence regulatory element expression, function or activity in the cell in the absence of the test compound, a compound that modulates expression or activity of a protective sequence product or protective sequence regulatory element is identified.

47. The method of Claim 46, wherein the protective sequence product or protective sequence regulatory element comprises:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.

48. A method for transferring a protective sequence into a cell comprising contacting the cell with a nucleic acid comprising a protective sequence such that the protective sequence is transferred into the cell.

49. The method of Claim 48 wherein the protective sequence is expressed in the cell.

50. The method of Claim 48 wherein the protective sequence confers protection to the cell from cell death.

51. A method for modulating the function, activity and/or expression of a protective sequence in a cell comprising administering to the cell a compound which modulates the function, activity and/or expression of a protective sequence in the cell.

52. The method of Claim 51, wherein the compound inhibits or potentiates the function, activity and/or expression of a protective sequence in the cell.

53. The method of Claim 51, wherein the compound enhances or increases the function, activity and/or expression of a protective sequence in the cell.

54. The methods of any one of Claims 51-53, wherein the compound is selected from the group consisting of a small organic molecule, an antibody, a ribozyme.or an antisense molecule.

55. The method of Claim 51, wherein the protective sequence encodes a protective sequence product comprising:

(a) an amino acid sequence shown in Figures 4(A-L);

(b) an amino acid sequence shown in Figures 5(A-X);

(c) an amino acid sequence shown in Figures 6(A-AD);

(d) an amino acid sequence shown in Figures 7(A-H);

(e) an amino acid sequence shown in Figures 8(A-O);

(f) an amino acid sequence shown in Figures 9(A-AL);

(g) an amino acid sequence shown in Figures 10(A-O);

(h) an amino acid sequence shown in Figures 11(A-AG);

(i) an amino acid sequence shown in Figures 12(A-AY); or

(j) the amino acid sequence shown in Figure 13.